

## PATENT ABSTRACTS OF JAPAN

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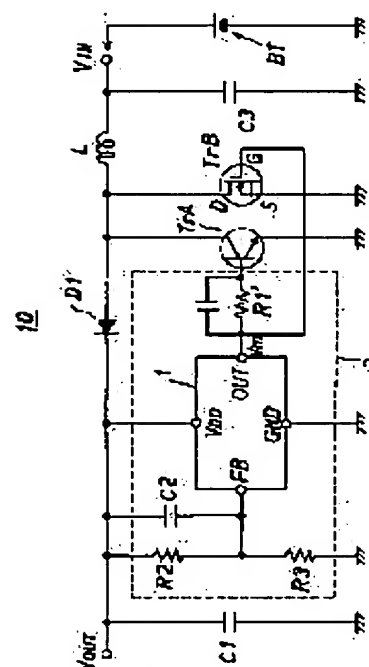
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## (54) SWITCHING REGULATOR

## (57)Abstract:

PROBLEM TO BE SOLVED: To increase the life of a battery by reducing reactive current in a DC power circuit for a portable (recording-) playback device such as CD and MD.

SOLUTION: This switching regulator 10 is of chopper system involving a coil L and a diode D1 connected in series with the positive side of a DC power source BT, a PWM pulse control part 3, a bipolar transistor TrA connected in parallel with the DC power supply BT through the coil L and switched by the pulse output of the PWM pulse controlling part 3, and a capacitor C1 connected in parallel with an output VOUT. A source S and a drain D are also connected in parallel with the bipolar transistor TrA, and an FET (TrB) having the pulse output of the PWM pulse control part 3 connected with a gate G is inserted additionally. When one battery is actuated to serve as a DC power source BT, the TrA starts switching, and after boosting operation, TrB performs switching to supply DC current to a load and the base current IB of the TrA is reduced as soon as possible, thereby reducing reactive current substantially during standby and playback operations.



## LEGAL STATUS

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